

# INDUCTIVE PROXIMITY SENSORS

## SMALL DIAMETER—5 AND 8 mm

### E57 Series



- Small 5 and 8 mm Diameters for Use in Applications with Limited Space for Mounting Sensors
- Stainless Steel or Ni-Brass Housings
- All Models Include an LED Indicator to Show Output Status
- Short Circuit and Reverse Polarity Protection
- Rated NEMA 4, 4X, 6, 6P, 12 and 13 (IP67) for High Resistance to Environmental Factors

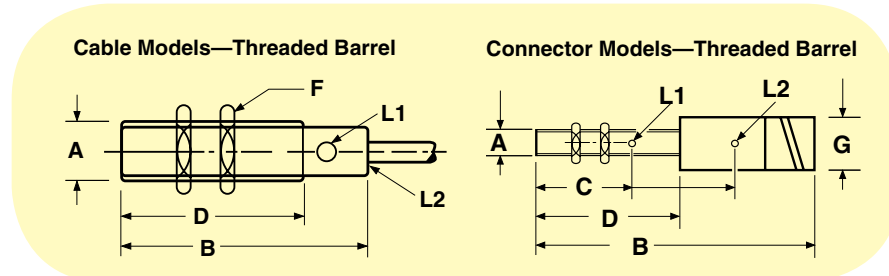
### Applications

- Automation Equipment
- Robotics
- Machine Tool
- Counting
- Sorting

These unique Cutler-Hammer® Inductive Proximity Sensors are designed to be used in extremely small spaces. A wide variety of models are available with housing diameters of 8 mm (0.31") and a very small 5 mm (0.20"), allowing you to choose the one that best fits your application. The sensors are 3-wire devices that operate from 10 to 30 Vdc. Both shielded and unshielded versions are available.

### SPECIFICATIONS

**Operating Voltage:** 10 to 30 Vdc  
**Maximum Load Current:** 200 mA  
**Switching Frequency:** 2 kHz  
**Leakage Current:** 0.01 mA maximum  
**Voltage Drop:** 1.5V maximum  
**Burden Current:** 10 mA maximum  
**Protection Transient:** Power on false pulse suppression, auto-reset short circuit



Dimensions: mm (in)

DIA A	LENGTH B	C	D	THREAD E	NUT WIDTH F	CONNECTOR DIA G	LED LOCATION
5 mm (0.20")	25 (1.0)	—	21 (0.8)	M5 x 0.5	SW8	—	L1
8 mm (0.31") cable	30 (1.8)	—	30 (1.2)	M8 x 1	SW13	—	L2
8 mm (0.31") micro-con.	50 (2.0)	40 (1.6)	25 (1.0)	M8 x 1	SW13	1.2 (0.47)	L2

**Switching Hysteresis:** <15% rated sensing distance  
**Repeat Accuracy:** <1% sensing distance  
**Time Delay Before Availability:** <50 mS  
**Output Indicator LED:** Lights when output is ON  
**Operating Temperature:** -25 to 70°C (-13 to 158°F)

**Enclosure Ratings:** NEMA 4, 4X, 6, 6P, 12 and 13 (IP67)  
**Housing Material:** Stainless steel or Ni plated brass  
**Cable:** PVC high flex, oil/water resistant, 22 AWG

E57EAL5T110SP shown larger than actual size.



E57-08GS01-CDB shown larger than actual size.

**Wiring Diagrams (Pin Numbers Are for Reference, Rely on Pin Location When Wiring)**

OPERATING VOLTAGE 3-WIRE SENSORS	OUTPUT	CABLE MODELS	MICRO CONNECTOR MODELS (FACE VIEW MALE SHOWN)
10 to 30 Vdc	NO (NPN)		
	NO (PNP)		

To Order					
TYPE	MODEL NO.	OPERATING VOLTAGE	SENSING RANGE mm (in)	SHIELDING	CONNECTION TYPE m (ft)
5 mm (0.20") Dia. End Sensing NO Output SS Case	E57EAL5T110SP	10 to 30 Vdc	0.8 (0.03)	Shielded NPN	2 (6) cable
	E57EAL5T111SP			Shielded PNP	
8 mm (0.31") Dia. End Sensing NO Output Ni-Brass Case	E57-08GS01-C	10 to 30 Vdc	1 (0.04)	Shielded NPN	2 (6) cable
	E57-08GS01-CDB			Shielded PNP	4-pin micro DC connector
	E57-08GS01-G			Shielded NPN	2 (6) cable
	E57-08GS01-GDB			Shielded PNP	4-pin micro DC connector
	E57-08GU02-C		2 (0.08)	Shielded NPN	2 (6) cable
	E57-08GU02-CDB			Shielded PNP	4-pin micro DC connector
	E57-08GU02-G			Shielded NPN	2 (6) cable
	E57-08GU02-GDB			Shielded PNP	4-pin micro DC connector
	E57-08GE03-C		3 (0.1) Extended Range	Shielded NPN	2 (6) cable
	E57-08GE03-CDB			Shielded PNP	4-pin micro DC connector
	E57-08GE03-G			Shielded NPN	2 (6) cable
	E57-08GE03-GDB			Shielded PNP	4-pin micro DC connector

Ordering Examples: E57EAL5T110SP, 5 mm (0.20") diameter prox, shielded, NPN output, 2 m (6') cable.  
E57-08GU02-C, 8 mm (0.31") unshielded NPN output with 2 m (6') cable.

**Accessories**

MODEL NO.	DESCRIPTION
CSDS4A4CY2202	DC cable, 4-pin, 22 AWG, 2 m (6') PVC jacket
E57KM8	Bracket for 8 mm (0.31") tubular sensors